CMPS 161 – Special Exercise Set #2

1. Determine the value of the following expressions. Assume \( a = 5, b = 2, c = 4, d = 6, \) and \( e = 3. \)
   a. \( a > b \)
   b. \( a != b \)
   c. \( d \% b == c \% b \)
   d. \( a * c != d * b \)
   e. \( d * b == c * e \)
   f. \( a * b \)
   g. \( a \% b * c \)
   h. \( c \% b * a \)
   i. \( b \% c * a \)

2. Using parentheses, rewrite the following expressions to correctly indicate their order of evaluation. Then evaluate each expression assuming \( a = 5, b = 2, \) and \( c = 4. \)
   a. \( a \% b * c && c \% b * a \)
   b. \( a \% b * c || c \% b * a \)
   c. \( b \% c * a && a \% c * b \)
   d. \( b \% c * a || a \% c * b \)

3. Write relational expressions to express the following conditions (use variable names of your own choosing):
   a. a person’s age is equal to 30
   b. a person’s temperature is greater than 98.6
   c. a person’s height is less than 6 feet
   d. the current month is 12 (December)
   e. the letter input is m
   f. a person’s age is equal to 30 and the person is taller than 6 feet
   g. the current day is the 15th day of the 1st month
   h. a person is older than 50 or has been employed at the company for at least 5 years
   i. a person’s identification number is less than 500 and the person is older than 55
   j. a length is greater than 2 feet and less than 3 feet

4. Determine the value of the following expressions (as true or false), assuming \( a = 5, b = 2, c = 4, \) and \( d = 5. \)
   a. \( a = 4 \)
   b. \( b * d != c * c \)
   c. \( d \% b * c >= 5 || c \% b * d < 7 \)